TODTZ FARM (Camanche Landfill)

(Camanche, Iowa)

GENERAL DESCRIPTION

The site is located approximately 1.5 miles west of Camanche, Iowa. It occupies a gravel pit located in the SW 1/4 of the SW 1/4 of Section 29, T81N, R6E in Clinton County. The 12-acre site is owned by Lewis L. and Lynn R. Todtz, they acquired the site in 1988. The site was entered on the Registry in February 1989. The EPA placed the site on the National Priorities List (NPL) in June 1986. Lawrence Todtz purchased the land in 1958. From 1959 to 1969, he leased the 12-acre site for sand and gravel mining. When mining ceased, the pit was operated by McManus Brothers as a municipal landfill for the city of Camanche from 1971 to 1975.

SITE CLASSIFICATION

The site is classified "b" in accordance with 455B.427.3. Hazardous wastes containing arsenic, lead, nickel, sodium hydroxide, acetone, carbon disulfide, cresols, methylene chloride, tetrahydrofuran, and toluene have been disposed at the site, posing a significant threat to the environment.

TYPE AND QUANTITY OF HAZARDOUS WASTE

In 1971 McManus Brothers sublet a 2.5-acre part of the gravel pit to E. I. DuPont de Nemours and Company for the construction and operation of an industrial waste impoundment. DuPont disposed of 4,300 tons of process wastes from their cellophane plant in Clinton, Iowa. The impoundment cell was closed in 1975. Hazardous wastes containing arsenic, lead, nickel, sodium hydroxide, acetone, carbon disulfide, cresols, methylene chloride, tetrahydrofuran, and toluene have been disposed at the site.

TABLE 1
Groundwater Contamination

Compound	**Highest Value** (ug/L)	Statewide Standard for Protected Ground water (ug/L)
Carbon Disulfide	3,600	700
Acetone	2,000	700
Toluene	8,800	1000
Methylene Chloride	2,500	5.0
Tetrahydrofuran	97,000	NA
Cresol	1,200	NA
Arsenic	1,400	50
Lead	400	15
Nickel	4,000	100 (soluble salts)
Sodium	5,800,000	NA

SUMMARY OF PUBLIC HEALTH AND ENVIRONMENTAL CONCERNS

- **The primary public health concern is the potential exposure to contaminated drinking water**

The site is located on the floodplain of the Mississippi River and is about 1.5 miles northwest of the river. Two lakes are located next to the site on the east and south sides. An alluvial aquifer is present at the site, flowing to the southeast toward the river. This groundwater is the source of drinking water for nearby residential wells and for the municipal wells at the city of Camanche.

The disposed wastes at the site are in direct contact with the alluvial aquifer. Samples from the monitoring wells demonstrate the on-site groundwater is contaminated with hazardous substances originally disposed at the site. Several of the concentrations listed in Table 1 exceed the regulatory or advisory limits for these chemicals in drinking water. Sampling suggests contaminants may be migrating from the site. The local lakes, streams, and the Mississippi River are used for recreational activities and commercial shipping. Marshes adjacent to the river and about 1.5 miles southeast of the site form part of the Upper Mississippi River Wildlife and Fish Refuge.

STATUS OF ASSESSMENT, MONITORING OR REMEDIAL ACTION

The EPA is the lead agency on the site.

The EPA began investigating the site in 1980. A Consent Order, effective April 4, 1988, required DuPont to conduct a Remedial Investigation/Feasibility Study (RI/FS) for their impoundment cell. The draft RI/FS report was submitted in July 1988. The EPA issued a Record of Decision (ROD) on November 4, 1988, selecting the preferred remedial action. In November 1990, the EPA and DuPont entered a Consent Decree on the ROD.

In August 1989 the James Bark well was replaced with a deeper well. A second well also was installed at the adjacent Steven Bark residence. The replaced (James Bark) residential well was completed in the shallow alluvial groundwater. It is located near the southeast corner of the site and is down gradient of it. Elevated sodium concentrations (200,000 ug/l) have been detected at the well.

The Record of Decision (ROD) Required DuPont to cap the impoundment cell with soil, fence the area and install up-gradient groundwater monitoring system. These Remedial actions were completed in the summer of 1991. The ROD also required a long-term ground water monitoring program (at least 30 year). The Long-term ground water monitoring strategy included the establishment of the lower target level (80% of the action level) would mandate the evaluation of additional remedial options by DuPont. A detection of the higher levels would require implementation of the selected remedy.

In 1993, the lower action level was exceeded for tetrahyrofuran. During prescribed verification sampling the higher trigger level was also exceeded, however, levels have not consistently remained above the higher level. Evaluation of remedial options has resulted in the selection of a slurry wall as the preferred remedy should monitoring levels consistently exceed the higher trigger level.

The EPA conducted a five-year review in late 1995 and 2000. No changes have been recommended from the reviews, although the monitoring frequency has been reduced in accordance with the ROD.

2002: Annual Long-term Monitoring for DuPont Impoundment Operable Unit-2001 submitted to IDNR. Results indicate contamination concentrations did not exceed established “trigger levels” for this period of monitoring.

2005: Five-year review completed this year identified the following item to be addressed through anticipated work plans. Additional evaluation for arsenic due to lowering of the MCL that has resulted in increased concern for this contaminant, though no unsafe exposures identified.

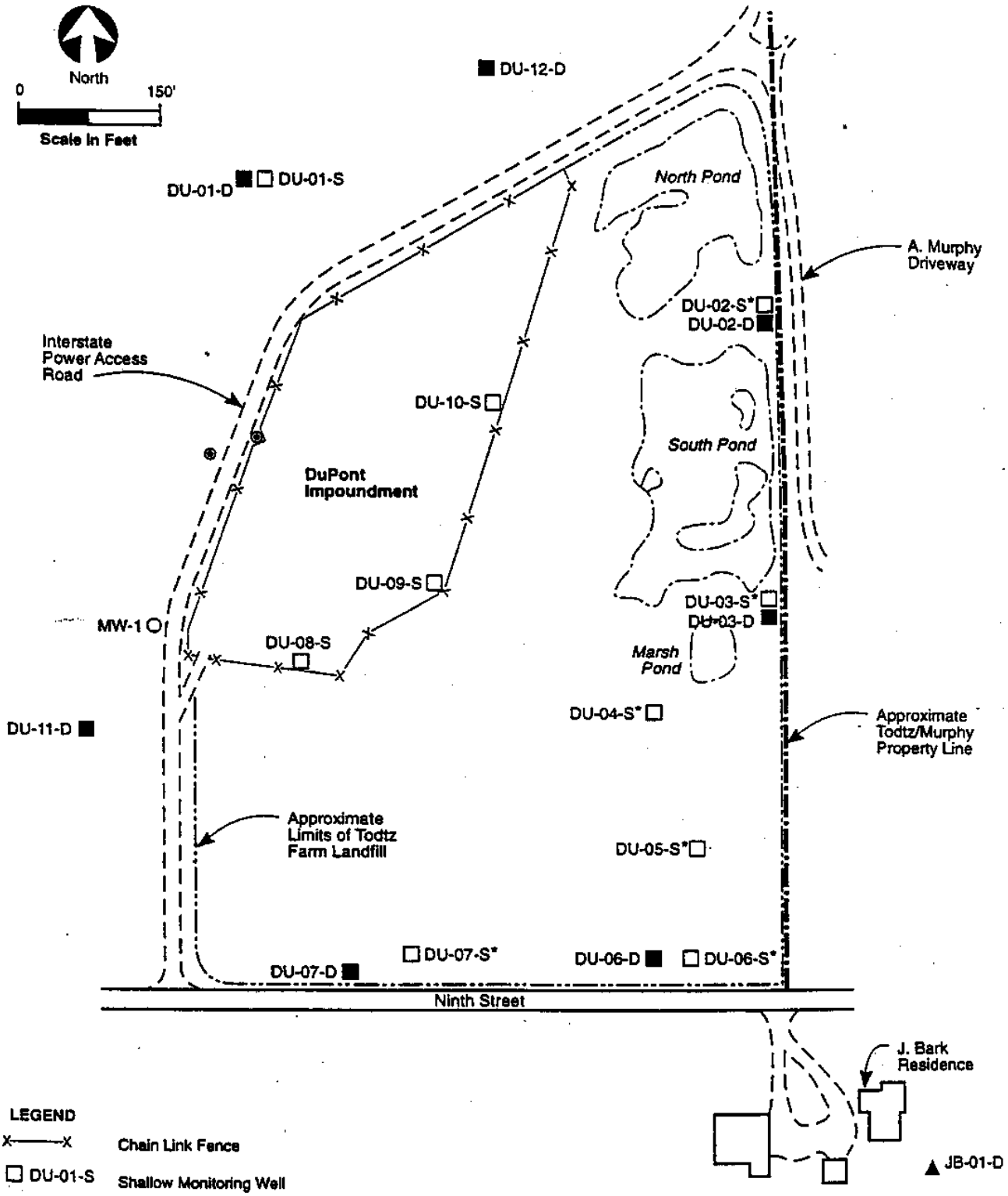

FIGURE 1
Site Map
DuPont Impoundment RA
Lawrence Todtz Farm Landfill Site

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